IN THE CLAIMS

Claims 1-13 are pending in this application. Please amend the claims, as follows:

1.   (Currently Amended) A packet processing method, comprising the steps of:

providing a packet processing apparatus that incorporates a processor selector for extracting identification information <u>of a transport layer</u> that denotes a characteristic of a data flow composed of an input packet from said packet, a processing selecting table for holding a pair of data items that are identification information and a processing to be performed for said packet in advance, a table searcher for searching information in said processing selecting table according to a search key, which is identification information extracted by said processor selector, a <u>plurality of independent</u> packet ~~processor~~ <u>processors</u> for processing said packet according to a result of searching in said table, and a port selector for sending said processed packet;

extracting identification information that denotes a characteristic of a data flow composed of an input packet from the header information of said packet, wherein said packet ~~processor is~~ <u>processors are</u> one of a plurality of types of packet processors, each being independent for a processing type to be performed for packets;

<u>extracting a transport layer state based on said identification information of said transport layer, wherein said transport layer state indicates an arrival history of a packet with respect to each identification information of said transport layer;</u> and

selecting a processing to be performed for the data of a packet in a packet flow for each input packet flow.

2.   (Previously Presented) The packet processing method according to claim 1, wherein said processing is selected according to an input line to which said packet flow is inputted.

3.   (Previously Presented) The packet processing method according to claim 1, wherein said processing is selected according to an identifier included in said packet data.

4.   (Previously Presented) The packet processing method according to claim 1, wherein said processing is selected by referring to a table where an input line to which said packet flow is inputted and a processing to be selected are corresponded to each other.

5.   (Previously Presented) The packet processing method according to claim 1, wherein said processing is selected by referring to a table where an identifier included in said packet data and a processing to be selected are corresponded to each other.

6.   (Previously Presented) The packet processing method according to claim 1, wherein a processing to be performed for packet data is at least one of encapsulation, decapsulation, encryption, decryption, compression, and expansion.

7.   (Currently Amended) A packet processing apparatus, comprising:
        a processor selector for extracting identification information from a transport layer that denotes a characteristic of a data flow composed of an input packet from said packet;
        a processing selecting table for holding a pair of data items that are identification information and a processing to be performed for said packet in advance;
        a table searcher for searching information in said processing selecting table according to a search key, which is identification information extracted by said processor selector;
        a plurality of independent packet processor processors for processing said packet according to a result of searching in said table; and
        a port selector for sending said processed packet, wherein said processor selector further extracts a transport layer state based on said identification information of said transport layer, and
        said transport layer state indicates an arrival history of a packet with respect to each identification information of said transport layer.

8.   (Previously Presented) The packet processing apparatus according to claim 7, wherein identification information that denotes a characteristic of a data flow composed of an input packet is extracted from the header information of said packet.

-3-

9.   (Previously Presented) The packet processing apparatus according to claim 8, wherein said identification information that denotes a characteristic of said data flow is at least one of a source address and a destination address.

10.   (Previously Presented) The packet processing apparatus according to claim 8, wherein said packet processor is one of a plurality of types of packet processors, each being independent for a processing type to be performed for packets.

11.   (Original) A packet processing apparatus, comprising:

a processor selector for deciding the source of an input packet;

a processing selecting table for holding a pair of data items that are identification information of a transport layer and a processing to be performed for said packet in advance;

a table searcher for searching information in said processing selecting table according to a search key, which is a source of said packet decided by said processor selector;

a plurality of packet ~~processor~~ processors for processing said packet according to a result of searching in said table; and

a port selector for sending said processed packet, wherein said processor selector further extracts a transport layer state based on said identification information of said transport layer, and

said transport layer state indicates an arrival history of a packet with respect to each identification information of said transport layer.

12.   (Previously Presented) The packet processing apparatus according to claim 11, wherein an input line to which said packet is inputted is decided as the source of said packet.

13.   (Previously Presented) The packet processing apparatus according to claim 11, wherein the source of said inputted packet is decided according to the header information of said packet.